

**ANALYSIS OF
LOCAL EXCHANGE CARRIER
DEPRECIATION RESERVE LEVELS**

Richard B. Lee

**Vice President
Snively King Majoros O'Connor & Lee, Inc.**

January 29, 1997

ANALYSIS OF LOCAL EXCHANGE CARRIER DEPRECIATION RESERVE LEVELS

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	CURRENT LEC DEPRECIATION RESERVE LEVELS ARE AT HISTORIC HIGHS	1
III.	THE LECs DO NOT HAVE A SIGNIFICANT DEPRECIATION RESERVE DEFICIENCY	2
A.	THEORETICAL RESERVE CALCULATIONS DO NOT INDICATE A SIGNIFICANT RESERVE DEFICIENCY	2
B.	REPLACEMENT COST CALCULATIONS SHOULD NOT INDICATE A SIGNIFICANT RESERVE DEFICIENCY	11
C.	MARKET INDICATIONS DO NOT INDICATE A SIGNIFICANT RESERVE DEFICIENCY	12
D.	SUMMARY	13
IV.	LEC DECISIONS COULD CREATE RESERVE DEFICIENCIES	13
V.	CONCLUSION	14

Attachment 1	Resume of Richard B. Lee
Attachment 2	Depreciation Reserve Percent - All LECs
Attachment 3	Bell Regional Holding Company Plant
Attachment 4	Illustration of Depreciation Reserve Deficiency Creation

ANALYSIS OF LOCAL EXCHANGE CARRIER DEPRECIATION RESERVE LEVELS

I. INTRODUCTION

The Commission's Access Charge NPRM invites comments on the extent to which under-depreciation contributes to the difference between the embedded and forward-looking costs of local exchange access.¹ This report responds to the Commission's invitation by examining the adequacy of existing local exchange carrier ("LEC") depreciation reserve levels.²

In summary, this report concludes that LEC depreciation reserve levels are adequate for the provision of telecommunications services, and that a significant depreciation reserve deficiency does not exist. This report also concludes, however, that LEC decisions could create reserve deficiencies in the future.

II. CURRENT LEC DEPRECIATION RESERVE LEVELS ARE AT HISTORIC HIGHS

Perspective on the adequacy of existing depreciation reserve levels can be gained by examining the history and recent trend of depreciation reserves as a percent of telecommunications plant in service. Attachment 2 to this report displays reserve percents and other plant rates since 1944 for all LECs providing full financial reports to the Commission. As shown on Page 1 of Attachment 2,

¹ Access Charge Reform, CC Docket No. 96-262, FCC 96-488, Notice of Proposed Rulemaking released December 24, 1996 ("Access Charge NPRM"), para. 254.

² The primary author of this report is Richard B. Lee, Vice President of Snively King Majoros O'Connor & Lee, Inc. Mr. Lee's resume is Attachment 1 to this report.

reserve percents decreased steadily following World War II due to industry growth.³ These declines continued through the 1970's due in part to accrual rates which were too low.⁴ The Commission's change to forward-looking depreciation practices in the 1980s, however, resulted in a dramatic rise in reserve levels after 1980. The composite reserve level rose from 18.7 percent in 1980 to an historic high of 45.1 percent in 1995.

III. THE LECs DO NOT HAVE A SIGNIFICANT DEPRECIATION RESERVE DEFICIENCY

A. THEORETICAL RESERVE CALCULATIONS DO NOT INDICATE A SIGNIFICANT RESERVE DEFICIENCY

As high as current reserve percents are, however, the question remains whether reserve levels are high enough to preclude reserve deficiencies. The Commission describes depreciation reserve deficiencies as follows

A reserve imbalance exists when the carrier's actual "book" depreciation reserve differs from its "theoretical" reserve, which is the reserve which would exist if service lives and salvage values had been accurately forecast in the past. When the theoretical reserve exceeds the book reserve, the imbalance is a reserve deficiency.⁵

A comprehensive study comparing the actual book reserves of the Regional Bell Operating Companies ("RBOCs") to their theoretical reserves has shown that the RBOCs do not have a significant reserve deficiency if the lives

³ Report on Telephone Industry Depreciation, Tax and Capital/Expense Policy, Accounting and Audits Division, April 14, 1987 ("AAD Report"), p.7.

⁴ Id.

⁵ Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order", FCC 96-325, released August 8, 1996 ("Interconnection Order"), footnote 1633.

prescribed by the FCC are used in the theoretical reserve calculation.⁶

The selection of plant lives, of course, is critical to the calculation of a theoretical reserve study. There are three principal criteria that should govern the determination of plant lives used in these calculations.

The lives must be forward-looking.

The average service life and remaining life used in a properly constructed theoretical reserve study are both dependent upon the selection of a forward-looking projection life. The projection life is defined as the average life expectancy of new additions to plant.⁷

The lives must be unbiased, neither too long nor too short.

The selection of realistic projection lives is critical to the determination of the theoretical reserve. The use of unrealistically long lives would be unfair to the LECs, since it could result in failure to recognize a reserve deficiency when one exists. Conversely, the use of unrealistically short lives would result in the appearance of reserve deficiencies when they do not exist.

The use of unrealistically short lives would effectively require ratepayers to provide capital contributions to the LECs.⁸ Steps taken to

⁶ See Depreciation Policy in the Telecommunications Industry: Implications for Cost Recovery by the Local Exchange Carriers, MICRA, December 1995 (MICRA Study"), attached to MCI comments filed December 18, 1995, in Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1.

⁷ Public Utility Depreciation Practices National Association of Regulatory Utility Commissioners, August 1996. ("Depreciation Practices"), p. 332.

⁸ The Supreme Court has ruled that excessive depreciation results in an unwarranted capital contribution by telephone ratepayers. *Lindheimer v. Illinois Bell Telephone Co.*, 292 U.S. 151, 78 L. Ed. 1182, 54 S.Ct. 658 (1934).

compensate LECs for improperly calculated reserve “deficiencies” would result in the pricing of LEC services above their true economic costs. The excess revenues generated by such prices would be available to the LECs to distribute to stockholders, to invest in unregulated ventures or to subsidize lower prices for competitive services.

The lives must exclude the impact of premature retirements.

The lives must exclude the impact of premature retirements due to the provision, or prospective provision, of nonregulated services. Pursuant to the FCC’s rules, the costs associated with the accelerated replacement of facilities for the benefit of unregulated services are excluded from the regulated accounts.⁹ The projection lives selected should not assume the premature retirement of plant for the benefit of unregulated services when that plant remains economically efficient for the provision of telecommunications services. For example, the plant lives selected should not assume the accelerated replacement of telecommunications plant to enable a LEC to provide video programming services.

The following discussion of the appropriate source of plant lives for use in theoretical reserve calculations will focus on the degree to which each source of plant lives meets these three criteria.

⁹ Separation of costs of regulated telephone service from costs of nonregulated activities, CC Docket No. 86- 111, Report and Order, FCC 86-564, released February 6, 1987.

1. FCC Projection Lives

The lives set by the FCC are appropriate for use in theoretical reserve calculations. Pursuant to statutory responsibility, the FCC has been setting depreciation rates for telephone companies for over 50 years.¹⁰ In general, it reviews full studies submitted by the largest companies on a triennial basis. The FCC bases its projection life findings on its analysis of the studies filed by the carriers and in consultation with the various state commission staffs. The opportunity to review periodically the plans of every large telephone company has provided the FCC staff with the broadest possible perspective on this subject.

The projection lives set by the FCC are both forward-looking and unbiased. Over a decade ago the FCC directed its staff to put less emphasis on historical data in estimating productive lives, and to pay "closer attention to company plans, technological developments and other future-oriented analyses."¹¹ Recently, the FCC reaffirmed its forward-looking orientation in connection with the simplification of its depreciation prescription practices. The FCC established a range of projection lives which could be selected by carriers for prescription on a streamlined basis. The FCC stated that these ranges were based upon "statistical studies of the most recently prescribed factors. These statistical studies required detailed analyses of each carrier's most recent retirement patterns, the carriers' plans, and the current technological

¹⁰ 47 U.S.C. § 220(b).

¹¹ Report on Telephone Industry Depreciation, Tax and Capital/Expense Policy, Accounting and Audits Division, Federal Communications Commission, April 15, 1987 (AAD Report"), p.3.

developments and trends.”¹² As such, this streamlined represcription practice assures the development of projection lives that allow recovery of efficient forward-looking capital investments.

Confirmation of the forward-looking nature of current FCC prescriptions can be gained by comparing the 1995 accrual rate of 7.1 percent (Attachment 2, Page 4, Column l) to the 1995 retirement rate of 3.5 percent (Attachment 2, Page 4, Column k). The prescription of an accrual rate much higher than the current retirement rate indicates an expectation that the retirement rate will be much higher in the future. If the FCC were prescribing depreciation rates based upon historical indicators, it would be prescribing depreciation rates in the range of 3 to 5 percent.

2. Technological Futures, Inc., Lives

The United States Telephone Association (USTA”) supports its opposition to the use of FCC lives by referencing studies performed by Technology Futures, Inc. (“TFI”).¹³ Telecommunications Technology Forecasting Group, an industry association of major LECs in the United States and Canada, pays TFI to conduct plant life studies and recommend plant lives based upon these studies. The LECs often refer to TFI’s opinions in support of their proposals for shorter plant lives in regulatory proceedings.

¹² FCC, Simplification of the Depreciation Prescription Process, CC Docket No. 92-296 (“Prescription Simplification” proceeding) Third Report and Order, FCC 95-181, released May 4, 1995, p.6.

¹³ Price Cap Performance Review for Local Exchange Carriers, CC Docket No. 94-1, Reply Comments of the United States Telephone Association on Fourth Further Notice of Proposed Rulemaking, March 1, 1996, (“USTA, Reply”), pp. 17-18.

TFI lives are based upon the premise that the LECs will replace their narrowband telecommunications networks with broadband integrated networks capable of providing both telecommunications services and video services, such as cable television.¹⁴ According to TFI, Fiber In The Loop ("FITL") will bring broadband to the home, displacing copper plant.¹⁵ This will result in the upgrading of all transmission systems to Synchronous Optical Network ("SONET"), replacing existing circuit equipment.¹⁶ Asynchronous Transfer Mode ("ATM") switching equipment will provide a broadband switching capability replacing today's narrowband switch fabrics.¹⁷

Theoretical reserve calculations should not be based upon assumptions such as these in determining the appropriate depreciation recovery from telephone ratepayers. Rather, any impact upon depreciation or any additional cost associated with broadband capable investments must be recovered from consumers of those new services. As discussed above, the plant lives selected for regulatory purposes should not assume that economically efficient telecommunications facilities will be prematurely retired in order to provide broadband and video services.

3. IRS Plant Recovery Lives

The plant recovery lives established by the Internal Revenue Service ("IRS") would not be appropriate for use in calculating theoretical reserve levels.

¹⁴ Id., Attachment D, Appendix B, pp. 2 and 6.

¹⁵ Id.

¹⁶ Id., pp. 3 and 6.

¹⁷ Id., pp 2 and 6.

IRS lives are intentionally biased on the short side as a public policy incentive for businesses to invest in capital equipment.¹⁸ The Commerce Clearing House, Inc. ("CCH") states:

The Accelerated Cost Recovery System (ACRS), mandatory for most depreciable-type tangible property placed in service after 1980, was born out of a consensus that further incentives were needed to stimulate capital investment....The approach incorporated in the Economic Recovery Tax Act of 1981 moves away from the useful-life concept and minimizes exceptions and elections.

Since ACRS is not based on estimated useful lives, cost recovery under it does not, in a strict dictionary sense, qualify as depreciation....As a matter of convenience-and consistent with IRS language-ACRS is here classified as a system of depreciation even though it is a system for recovering the cost of property over periods that are shorter than the useful life of the property.¹⁹

Effectively, the IRS is providing cost-free capital contributions financed at taxpayer expense to companies making capital investments.²⁰ These capital contributions reduce the need for the company to finance its construction program from debt or equity. In regulatory proceedings, such capital contributions that have already been paid for by taxpayers are subtracted from the carrier's rate base so they are not again paid for by ratepayers.

¹⁸ Depreciation Practices, p.20

¹⁹ CCH, 1982 Depreciation Guide, p.11.

²⁰ Id., pp.197-198.

4. Financial Books Plant Lives

The plant lives used by the LECs on their financial books would not be appropriate for use in calculating theoretical reserve levels. These lives are also biased on the short side, but for different reasons. As the FCC has recognized, the lives used for financial accounting purposes are governed by the Generally Accepted Accounting Principle ("GAAP") of "conservatism."²¹ Under this principle, accounting methods are used which ensure that neither current income nor asset values are overstated. Absent a virtual guarantee of future recovery, therefore, GAAP requires that assets be written down to a level for which recovery can reasonably be assumed. Indeed, the more that is written down, the greater the conservatism of accounting. This conservatism effectively creates a bias towards shorter life estimates and larger plant writedowns. It should be noted that the carriers which have written down their financial books have not written down their regulatory books.

Financial book lives for some ILECs may also be shorter due to their plans to replace their existing telecommunication networks with integrated telecommunications/video networks. Under these circumstances, it may well be appropriate for the ILECs to use shorter lives for financial reporting purposes. As discussed above, however, this does not make these lives in any way relevant for theoretical reserve calculations.

²¹ Prescription Simplification proceeding, Report and Order, FCC 93-452, released October 20, 1993, p. 20.

5. Interexchange Carrier Plant Lives

The plant lives used by interexchange carriers (“IXCs”) would not be appropriate for use in calculating theoretical reserve levels. The expected productive life of plant is largely dependent upon its specific use. To use an extreme, but apt, analogy, the expected productive life of the copper wire installed in a house is many times that of the copper wire installed in an automobile. Despite surface similarity, the use of plant by LECs to provide local exchange and exchange access services is much different than the use of plant by IXCs to provide interexchange services.

IXCs are much less capital intensive than LECs, and thus are able to replace their plant much faster than LECs when the occasion demands. To service all homes and businesses in the Nation, an IXC needs only about 150 switches and 100,000 sheath kilometers of cable. To gain the same ubiquity for local exchange service, the LECs require over 23,000 switches and 6,000,000 sheath kilometers of cable.²² No matter how motivated the LECs may be, the sheer magnitude of their local network facilities means that replacement will be a long, drawn-out process.

Certain plant used by a LEC to provide interexchange services may, however, have similar lives to IXCs. Conversely, some plant placed by an IXC in the future to provide local services may have similar lives to LECs.

²² 1994 FCC Statistics of Common Carriers, p.159

6. Cable Company Plant Lives

The plant lives used by cable companies would not be appropriate for use in calculating theoretical reserve levels for the same reason that IXC lives are inappropriate. It makes little sense to reach out to a different industry which provides a very different service to seek lives for telephone plant, when prescribed lives by company and state are available for telephone plant.

Certain plant used by an LEC to provide cable services, however, may have similar lives to cable companies. Conversely, some plant placed by a cable company in the future to provide local telephone services may have similar lives to LECs.

B. REPLACEMENT COST CALCULATIONS SHOULD NOT INDICATE A SIGNIFICANT RESERVE DEFICIENCY

As the Commission notes, traditional depreciation reserve studies, such as described above, do not address the effects of changes in replacement value during an asset's life.²³ The Commission states:

Under-depreciation also can occur if the depreciation procedures do not recognize the decline in the economic value of plant already in service that occurs when the replacement cost is less than the cost of the older equipment. . . . In the emerging competitive marketplace that finds incumbent LECs facing competitors using newer, less expensive equipment, some portion of the deployed equipment is arguably under-depreciated by an amount equal to the difference between the current net book value and the forward-looking replacement cost of the depreciable plant.²⁴

²³ Access Change NPRM para. 252

²⁴ Id., para. 253.

Conversely, of course, over-depreciation can occur in an economic sense if the replacement cost of depreciable plant is increasing.

Although it might be possible that the replacement cost of a digital switch is less than the current net book value of a comparable switch, the opposite is undoubtedly true for the outside plant accounts. Since the average LEC has more than twice as much outside plant as switching equipment, the total replacement cost of LEC plant may be greater than the current net book value of LEC plant.²⁵ This would indicate a depreciation reserve surplus, not deficiency, in an economic sense.

C. MARKET INDICATIONS DO NOT INDICATE A SIGNIFICANT RESERVE DEFICIENCY

Bell Regional Holding Company ("RHC") plant as reported in their 10K financial reports is largely made up of regulated plant as demonstrated on Attachment 3 to this report. If there were a significant depreciation reserve deficiency on RBOC regulated reports, one would expect the market values of RHC stocks to be less than their book values (excluding the effects of financial book plant writedowns).

As shown in the study by Economics and Technology, Inc. ("ETI") filed concurrently with this report, the market values of the RHC's are significantly greater than their book values.²⁶ This is valid market evidence that the LECs do

²⁵ The FCC 1995 Statistics of Common Carriers shows Outside Plant investment as \$123 billion and switching investment as \$55 billion for all reporting LECs.

²⁶ Assessing Incumbent LEC Claims to Special Revenue Recovery Mechanisms: Revenue Opportunities, Market Assessments, and Further Empirical Analysis of the "Gap" between Embedded and Forward-looking Costs, Patricia D. Kravtin and Lee L. Selwyn, ETI, January 29, 1997.

not have a significant depreciation reserve deficiency.

Further corroborating market evidence that the LECs do not have a significant reserve deficiency is provided by ETI's analysis of the significant premiums over book value being paid by Bell Atlantic for NYNEX, and by SBC for Pacific Telesis.

D. SUMMARY

In summary, there is no reason to believe that LECs have a significant depreciation reserve deficiency for the provision of telecommunications services. LEC reserve percents are already at historically high levels, and are steadily increasing under the lives prescribed by the FCC. These FCC lives are forward-looking, unbiased and appropriate for use in theoretical reserve studies. Such traditional studies show no significant reserve deficiencies. Nor should replacement cost studies show significant reserve deficiencies. Indeed, for the outside plant accounts, replacement cost studies should show significant reserve surpluses. Such results are consistent with market studies which indicate that the current net book value of LEC plant is significantly understated due to over-depreciation.

IV. LEC DECISIONS COULD CREATE RESERVE DEFICIENCIES

The absence of a significant LEC depreciation reserve deficiency for the provision of telecommunications service does not imply that LEC decisions could not create one in the future. The imprudent premature retirement of efficient telecommunications technologies could create deficiencies of significant magnitude.

Moreover, the replacement of efficient telecommunications technology may even be prudent on a strategic basis for a company. For example, were the LECs to decide to replace their narrowband telecommunications network with an integrated broadband network for the provision of both telecommunications and cable television services, they might create a significant reserve deficiency.

Attachment 4 to this report illustrates such an event. Column (a) shows RBOC plant and reserves for local loop outside plant facilities as of December 31, 1995. Column (b) shows the retirement of this existing network. Column (c) shows, the addition of a new broadband network.²⁷ These calculations result in a depreciation reserve deficiency of \$42 billion, and an increase in RBOC net plant from \$42 billion to \$112 billion.

As discussed above, the additional costs associated with the premature retirement of efficient telecommunications plant in order to provide nonregulated services such as cable television should not be born by telephone ratepayers. The additional revenue requirements associated with such premature retirements must be born by nonregulated services or LEC stockholders.

V. CONCLUSION

This report has demonstrated that traditional analyses, replacement cost comparisons and market indicators all contradict the contention that the LECs have significant depreciation reserve deficiencies. Indeed, on an economic basis, it would appear that LEC plant already may be depreciated at a rate faster than appropriate for the provision of telecommunications services.

²⁷ For purposes of illustration, it is assumed that the cost of the broadband additions (\$70 billion) is less than the original cost of the narrowband network.

Richard B. Lee

Experience

Snively King Majoros O'Connor & Lee, Inc. Washington, DC

Vice President (1996 to Present)

Senior Consultant (1991 to 1995)

Mr. Lee provides consulting services that reflect his depth of experience with regulated utilities. For over a quarter of a century, he has been extensively involved in regulatory financial and accounting matters.

Mr. Lee has provided expert witness testimony, technical assistance and strategic support to clients in state commission proceedings related to the telephone, cellular telephone and electric industries. His testimony has addressed such matters as intraLATA competition, rate design, interconnection, cost allocation, incentive regulation, productivity, and overall financial performance. Mr. Lee has also conducted a cost allocation and affiliate transaction audit of a major telephone company on behalf of its state commission.

Mr. Lee has assisted clients in proceedings before the Federal Communications Commission (FCC) related to integrated long distance service packages, enhanced services, expanded local exchange interconnection, open network architecture, intelligent networks, rate of return, depreciation, network reliability, incentive regulation, and video dialtone. Recently, Mr. Lee performed a study on plant writedowns in the U.S. telecommunications industry on behalf of the Canadian Radio-Television and Telecommunications Commission.

AT&T, Basking Ridge, NJ

Regulatory Vice President (1988-1990)

Division Manager (1980-1988)

Mr. Lee represented AT&T before the FCC in all financial and accounting matters. In this capacity, he directed the preparation of all financially related AT&T filings and coordinated the analysis of commission and intervenor responses. In addition, he was responsible for the periodic review of AT&T financial operating results and the development of related capital and expense forecasts.

Mr. Lee directed the design and implementation of AT&T's automated system for the reporting of financial information to the FCC. He also was responsible for the implementation of AT&T's manual for the separation of regulated and unregulated costs and the conversion of the company to the revised Uniform System of Accounts.

His responsibilities included liaison with the FCC's audit staff and coordination of their activities with respect to AT&T. During his tenure, Mr. Lee brought scores of FCC investigations involving many billions of dollars to equitable conclusions.

Mr. Lee participated in the strategic development of price cap incentive regulation proposals and performed numerous related financial analyses. He also conceived and developed a methodology which reduced the administrative burden of AT&T's depreciation filings by over 90%.

Prior to divestiture, Mr. Lee coordinated all Bell System depreciation filings, rate of return pleadings and interstate rate cases. He was responsible for securing FCC approval of the accounting entries which implemented the Modified Final Judgment.

New York Telephone Company New York, NY

District Manager (1970-1980)

Accounting Manager (1963-1970)

Mr. Lee held a variety of progressively responsible positions leading to his selection as the Company's accounting representative before the New York Public Service Commission. In this capacity, he participated in numerous general rate cases and related proceedings.

In an earlier assignment, Mr. Lee directed an inter-departmental study of the company's "Lost Telephone Set" problem. The study resulted in both operational improvements and major strategy changes by the company.

While in a rotational assignment to AT&T, Mr. Lee developed a cost accounting and productivity measurement system that was implemented in all Bell System Comptrollers Departments.

Mr. Lee also managed numerous line organizations of up to 200 persons responsible for billing and collection, property and cost and data processing functions.

Education

Yale University, B.S. (High Honors)

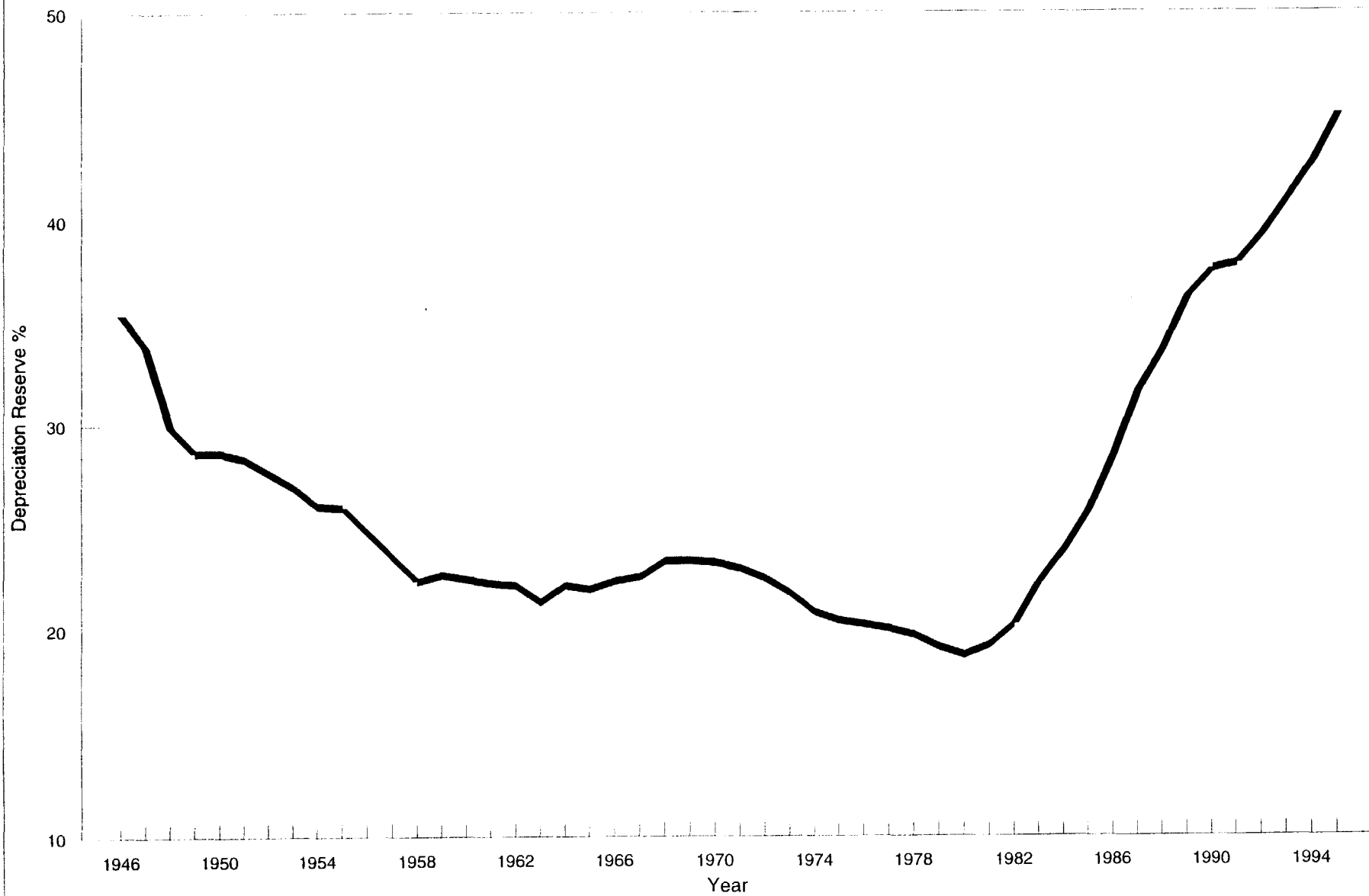
Harvard Business School, MBA (Distinction)

Professional Affiliations

Society of Depreciation Professionals

Depreciation Reserve Percent

All Lecs



All LEC's Plant Related Rates

(Dollars in Millions)

Telecommunications Plant in Service				Add (e)	Ret (f)	Deprec (g)	EOY Reserve (h)	AVG Reserve (i)	Add Rate (j) = e/a	Retire Rate (k) = f/a	Deprec Rate (l) = g/c	Reserve Percent (m) = h/b
BOY (a)	EOY (b)	Average (c)=(a+b)/2	Increase (d) = b-a									
1946		6,500	3,250				2,300					35.4
1947	6,500	7,400	6,950				2,500	2,400				33.8
1948	7,400	8,700	8,050				2,600	2,550				29.9
1949	8,700	9,800	9,250				2,800	2,700				28.6
1950	9,800	10,500	10,150				3,000	2,900				28.6
1951	10,500	11,300	10,900				3,200	3,100				28.3
1952	11,300	12,300	11,800				3,400	3,300				27.6
1953	12,300	13,400	12,850				3,600	3,500				26.9
1954	13,400	14,600	14,000				3,800	3,700				26.0
1955	14,600	15,800	15,200				4,100	3,950				25.9
1956	15,800	17,400	16,600				4,300	4,200				24.7
1957	17,400	19,600	18,500				4,600	4,450				23.5
1958	19,600	22,000	20,800				4,900	4,750				22.3
1959	22,000	23,000	22,500				5,200	5,050				22.6
1960	23,000	25,000	24,000	2,700	700	1,100	5,600	5,400	11.7	3.0	4.6	22.4
1961	25,000	27,000	26,000	2,800	800	1,200	6,000	5,800	11.2	3.2	4.6	22.2
1962	27,000	29,000	28,000	2,900	900	1,300	6,400	6,200	10.7	3.3	4.6	22.1
1963	29,000	32,000	30,500	4,000	1,000	1,400	6,800	6,600	13.8	3.4	4.6	21.3
1964	32,000	34,000	33,000	2,900	900	1,600	7,500	7,150	9.1	2.8	4.8	22.1
1965	34,000	37,000	35,500	4,100	1,100	1,700	8,100	7,800	12.1	3.2	4.8	21.9
1966	37,000	40,000	38,500	4,100	1,100	1,900	8,900	8,500	11.1	3.0	4.9	22.3
1967	40,000	44,000	42,000	5,100	1,100	2,100	9,900	9,400	12.8	2.8	5.0	22.5

All LEC's Plant Related Rates

(Dollars in Millions)

	Telecommunications Plant in Service												
	BOY (a)	EOY (b)	Average (c)=(a+b)/2	Increase (d) = b-a	Add (e)	Ret (f)	Deprec (g)	EOY Reserve (h)	AVG Reserve (i)	Add Rate (j) = e/a	Retire Rate (k) = f/a	Deprec Rate (l) = g/c	Reserve Percent (m) = h/b
1968	43,249	47,123	45,186	3,874	5,104	1,230	2,304	10,979	10,440	11.8	2.8	5.1	23.3
1969	47,175	51,724	49,450	4,549	6,022	1,473	2,507	12,072	11,526	12.8	3.1	5.1	23.3
1970	51,723	56,951	54,337	5,228	6,880	1,651	2,751	13,213	12,643	13.3	3.2	5.1	23.2
1971	56,972	63,090	60,031	6,118	8,052	1,933	3,016	14,447	13,830	14.1	3.4	5.0	22.9
1972	63,068	69,870	66,469	6,802	9,044	2,242	3,330	15,643	15,045	14.3	3.6	5.0	22.4
1973	69,951	77,442	73,697	7,491	10,085	2,595	3,659	16,769	16,206	14.4	3.7	5.0	21.7
1974	77,107	84,888	80,998	7,781	11,024	3,243	4,047	17,685	17,227	14.3	4.2	5.0	20.8
1975	84,799	92,284	88,542	7,485	10,881	3,396	4,486	18,809	18,247	12.8	4.0	5.1	20.4
1976	92,591	99,879	96,235	7,288	11,139	3,856	4,934	20,163	19,486	12.0	4.2	5.1	20.2
1977	101,237	109,496	105,367	8,259	12,438	4,136	5,630	21,903	21,033	12.3	4.1	5.3	20.0
1978	109,502	119,336	114,419	9,834	14,549	4,681	6,199	23,474	22,689	13.3	4.3	5.4	19.7
1979	118,612	129,972	124,292	11,360	16,843	5,452	6,820	24,881	24,178	14.2	4.6	5.5	19.1
1980	129,767	142,096	135,932	12,329	18,694	6,378	7,804	26,512	25,697	14.4	4.9	5.7	18.7
1981	142,121	155,845	148,983	13,724	19,482	5,749	8,664	29,932	28,222	13.7	4.0	5.8	19.2
1982	155,907	168,075	161,991	12,168	18,466	6,409	9,757	33,957	31,945	11.8	4.1	6.0	20.2
1983	169,162	178,482	173,822	9,320	16,076	6,664	11,340	39,571	36,764	9.5	3.9	6.5	22.2
1984	152,315	159,798	156,057	7,483	14,994	4,994	10,048	37,996	38,784	9.8	3.3	6.4	23.8
1985	174,218	186,294	180,256	12,076	18,972	6,687	11,469	43,837	40,917	10.9	3.8	6.9	25.7
1986	186,972	198,758	192,865	11,786	18,907	6,954	13,142	51,543	47,690	10.1	3.7	7.5	28.4
1987	199,063	209,687	204,375	10,624	18,535	7,886	15,263	61,471	56,507	9.3	4.0	8.1	31.6
1988	210,720	220,395	215,558	9,675	17,947	8,949	16,627	74,123	67,797	8.5	4.2	7.7	33.6
1989	220,126	229,326	224,726	9,200	16,868	8,145	16,839	83,115	78,619	7.7	3.7	7.5	36.2

All LEC's Plant Related Rates

(Dollars in Millions)

	Telecommunications Plant in Service												
	BOY	EOY	Average	Increase	Add	Ret	Deprec	EOY	AVG	Add	Retire	Deprec	Reserve
	(a)	(b)	(c)=(a+b)/2	(d) = b-a	(e)	(f)	(g)	Reserve	Reserve	Rate	Rate	Rate	Percent
								(h)	(i)	(j) = e/a	(k) = f/a	(l) = g/c	(m) = h/b
1990	229,103	235,247	232,175	6,144	18,473	12,380	16,955	88,146	85,631	8.1	5.4	7.3	37.5
1991	236,093	241,620	238,857	5,527	18,322	12,896	16,607	91,427	89,787	7.8	5.5	7.0	37.8
1992	242,599	249,508	246,054	6,909	18,877	12,138	17,036	98,053	94,740	7.8	5.0	6.9	39.3
1993	250,570	258,782	254,676	8,212	18,864	11,217	17,676	106,079	102,066	7.5	4.5	6.9	41.0
1994	259,216	267,443	263,330	8,227	18,781	10,990	18,656	114,598	110,339	7.2	4.2	7.1	42.8
1995	268,555	278,946	273,751	10,391	19,482	9,411	19,393	125,789	120,194	7.3	3.5	7.1	45.1
Avg.	'60-'71									12.0	3.1	4.9	
	'72-'83									13.1	4.1	5.5	
	'84-'95									8.5	4.2	7.2	

Source: 1946 - 1967 Report on Telephone Industry Depreciation, Tax and Capital/Expense Policy, Accounting and Audits Division, FCC, April 15, 1987, pp.6, 9

1968 - 1983 FCC Statistics of Common Carriers, Tables 12 and 16

1984 - 1987 FCC Statistics of Common Carriers, Tables 10 and 14

1988 - 1995 FCC Statistics of Common Carriers, Tables 2.7 and 2.9

Note 1: 1946 - 1983 Includes AT&T

Note 2: From FCC Statistics of Common Carriers, Table 14

Col l = 1985 Col g/165,076

1986 Col g/175,926

1987 Col g/187,920

Col m = 1985 Col h/170,355

1986 Col h/181,496

1987 Col h/194,343

Bell Regional Holding Company Plant

December 31, 1995

(Dollars in Millions)

<u>RHC</u>	<u>Regulated Plant</u> (a)	<u>Total Plant</u> (b)	<u>Percent</u> (c)=a/b
Ameritech	28,010.0	30,873.7	91%
Bell Atlantic	32,802.3	33,553.8	98%
BellSouth	43,280.6	46,869.0	92%
NYNEX	32,836.5	35,734.6	92%
PacTel	26,653.4	27,222.0	98%
SBC	27,973.4	30,789.5	91%
U S West	<u>30,774.0</u>	<u>32,884.0</u>	94%
Total	222,330.2	237,926.6	93%

Source: Col. a = FCC Statistics of Common Carriers
Col. b = 10K Reports to SEC

Illustration of Depreciation Reserve Creation **RBOC Local Loop Outside Plant**

(Dollars in Millions)

		12/31/95 <u>Plant</u> (a)	Narrowband <u>Retirement</u> (b)	Broadband <u>Addition</u> (c)	Broadband <u>Plant</u> (d)=a+b+c
1	Plant	\$79,216	(\$79,216)	\$70,000	\$70,000
2	Reserve	<u>36,888</u>	<u>(79,216)</u>	<u>-----</u>	<u>(42,328)</u>
3	Net Plant (L1-L2)	\$42,328	-----	\$70,000	\$112,328

Sources: Col (a), Line 1 = RBOC 43-04 ARMIS Reports, Row 1455, Col. b
 Col (b), Line 2 = RBOC 43-04 ARMIS Reports,
 (Row 1455/Row 1530)*Row 3060
 Col (c), Line 1 = Illustrative figure

ASSESSING INCUMBENT LEC CLAIMS TO SPECIAL REVENUE RECOVERY MECHANISMS:

Revenue opportunities, market assessments,
and further empirical analysis of the "Gap"
between embedded and forward-looking costs

In the Matter of
Access Charge Reform

CC Docket No. 96-262

Patricia D. Kravtin
Lee L. Selwyn

January 29, 1997



ECONOMICS AND TECHNOLOGY, INC.

ONE WASHINGTON MALL • BOSTON, MASSACHUSETTS 02108

D